

REMARKS

Applicants respectfully request favorable reconsideration of this application, as amended.

Claim 5 was amended for reasons unrelated to patentability, i.e., punctuation and grammar; no new matter has been added. Applicants respectfully submit that this amendment places the application in better condition for appeal.

Claims 5 and 7 were finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicants Admitted Prior Art (AAPA), in view of JP 2002 137078 ("JP '078") and Moreau (US 5,180,921), and in further view of Kwon (US 6,160,835). Applicants respectfully traverse.

The Office Action opines that "AAPA describes (e.g., Figs 1 and 2 and description thereof) the substantial limitations of the claimed invention," admits that "AAPA does not describe the use of a mask having multiple light transmission openings," and then cites three additional references in support of its obviousness rejection (Pages 2–3). Applicants respectfully submit that the Office Action has failed to establish a *prima facie* case of obviousness with respect to Claims 5 and 7.

JP '078 discloses a laser beam cutting method and device for a steel plate. *See*, e.g., Abstract, etc.

As admitted by the Office Action (Page 3), JP '078 fails to disclose "a photo mask formed with light transmission openings for transmitting a part of the laser beam to be irradiated on the glass plate," as recited by Claim 5. The Office Action opines, however, that the Abstract and Figures 1 and 2 describe a "laser beam optical means having two condensing spots arranged side by side in a direction perpendicular to a cutting direction used for cutting steel" (Page 3). While the Abstract is silent with respect to the "optical means" cited by the Office Action, Applicants submit that JP '078 discloses a beam splitter 10 (15 or 16) and a condenser lens 6, as depicted in FIGS. 1, 4, 9 and 10. *See*, English translation of the Detailed Description provided by the Japan Patent Office (<http://www.jpo.go.jp>).

Moreau discloses an imaging system that detects the temperature and velocity of a particle within a plasma jet during flight between a plasma jet gun and a substrate. *See*, e.g., Abstract, Col. 5:63–65, etc.

As admitted by the Office Action (Page 3), Moreau fails to disclose a photomask in which "the light transmission openings are formed to prevent the laser beam being irradiated on a scribing line by the scribing means, and to symmetrically arrange the laser beam for the scribe line," as recited by Claim 5.

Applicants submit that Moreau also fails to disclose "a photo mask formed with light transmission openings for transmitting a part of the laser beam to be irradiated on the glass plate," as recited by Claim 5. Instead, Moreau's sensor head 8 images an individual particle within plasma spray 3 in order to determine the particle's temperature and velocity. While Moreau's sensor head 8 includes an optical mask 14 with two parallel slits 15, these slits provide a field of view for optical fibre 11 such that when "particle 27 of the mass of hot particles [travels] through the focal plane [particle 27] will generate a double peak light (radiation) pulse as it moves from the field of view of the first slit to the field of the view of the second slit" (Col. 4:62–66). In other words, Moreau's optical fibre 11 merely receives radiation emitted from a single plasma spray particle through slits 15 of optical mask 14, which is not the same as transmitting a part of a laser beam to be irradiated on a glass plate, as recited by Claim 5. Consequently, Moreau fails to disclose this feature.

Kwon discloses a handheld laser engraving or marking system for glass, metals, and the like. *See, e.g.,* Abstract, Col. 1:12–15, 28–30, Col. 7:23–27, Col. 10:37–57, etc.

As admitted by the Office Action (Page 3), Kwon fails to disclose "a photo mask formed with light transmission openings for transmitting a part of the laser beam to be irradiated on the glass plate" in which "the light transmission openings are formed to prevent the laser beam being irradiated on a scribing line by the scribing means, and to symmetrically arrange the laser beam for the scribe line," as recited by Claim 5.

Consequently, Applicants submit that neither AAPA, JP '078, Moreau nor Kwon, taken either singly or in combination, teaches or suggests all of the features recited by Claim 5.

Furthermore, the Office Action alleges that Moreau's optical mask 14 performs the same (equivalent) function as JP '078's beam splitter / condenser lens combination, and that the teachings of these references may be combined to provide the features missing from AAPA, i.e., "the use of side by side focus mask means in AAPA would have been obvious at the time

applicant's invention was made to a person skilled in the art because side by side focus provides excellent quality in a cut face" (Page 3). Applicants disagree.

Moreau differs significantly from AAPA and JP '078 with respect to functionality as well as technical field. Accordingly, one of ordinary skill in the art would not look to Moreau's system for monitoring the temperature and velocity of plasma sprayed particles in order to improve the laser beam glass cutting system described in AAPA, or the laser beam steel plate cutting system described in JP '078, because this combination "does not take into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned only from applicant's disclosure" (MPEP § 2145). *To wit*, there is simply no suggestion, in any reference, that Moreau's optical mask 14 is equivalent to JP '078's beam splitter / condenser lens combination, that Moreau's optical mask 14 provides a "side by side" focus, or that the teachings of such a disparate field would be within the level of ordinary skill in the laser beam art. Consequently, Applicants suspect the that Office Action is engaging in impermissible hindsight reconstruction in formulating its obviousness rejection. *See, also, In re McLaughlin* 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971).

Accordingly, Applicants submit that Claim 5 is allowable over the cited references. Furthermore, Claim 7, depending from Claim 5, is also allowable, at least for the reasons discussed above. Applicants also submit that the cited references fail to teach or suggest the features recited by dependent Claim 7, and, consequently, that this claim is independently allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance and should now be passed to issue.

A Notice of Allowance is respectfully solicited.

If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

The Commissioner is hereby authorized to charge any fees and to credit any overpayments that may be required by this paper under 37 C.F.R. §§ 1.16 and 1.17 to Deposit Account No. 50-2036.

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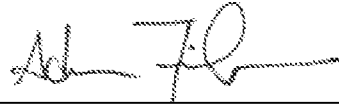
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Respectfully submitted,

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